# N.KUMARESAN, B.E., (Material Science & Engg)

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**55, North Kaveripalayam, Nagadevan palayam (Po), Gobi (Tk), Erode (Dt), Tamilnadu (State).**

**Current location: L.G.Balakrishnan & Bros Ltd, Bangalore plant, Bangalore (KA).**


## OBJECTIVE:

To obtain a Metallurgical engineer position in a progressive company and demonstrate my expertise in Heat treatment, Castings, Computer languages and operations systems to meet the company's goals and objectives.

## SYNOPSIS:

- Strong educational background in Materials Science and Engineering with 3+Yrs of Experience
- One years experience with a casting industry got exposure of Foundry, Metallography, Hardness, Chemical analysis, Mechanical testing and Melting section.
- Two+ years of Experience with LGB Group in Heat Treatment process monitoring and Quality, Metallurgical inspection, Raw material inspection.

## PROFESSIONAL EXPOSURE:

- Heat treatment
- Material testing and characterization
- Casting
- Forging
- Customer relationship
- Failure analysis

### Computer Knowledge:

Knowledge of MS Office-2013, Origin-8, Image J, Xpert High Score Plus.

### Quality System Knowledge:

Knowledge of IATF 16949:2016, TQM, FMEA.

## EDUCATIONAL QUALIFICATION:

**B.E. Meterial Science and Engg:**
2012-2015 – CARE GROUP OF INSTITUTIONS – Trichy (T.N.)

**Diploma in Metallurgy:**
2008-2011 – JKKM INSTITUTIONS – T.N.Palayam, Gobi (T.N.)

**SSLC:**
2007-2008 – ST.MARYS HIGH SCHOOL – Kolappalur, Gobi (T.N.)

## SPECIAL SKILLS:

- Good Team player
- Effective Communication
- Quick analytical and technical learner
- Hard worker with self-motivation

## PROFESSIONAL EXPERIENCE:

### 1. MAXWELL AUTO COMPONENTS PVT LTD. Coimbatore (T.N.)

**Profile** : Maxwell auto components is a Green field foundry, Manufacturing of grey and SG Castings.

**Position:** Quality engineer – (Metallurgical laboratory and Melting section).
**Period** : Aug'15 to August'16 (1 Years and 1 Month)

## WORKING EXPOSURE: (Roles)

- Planning executing the shop-floor operations like Induction melting, Charge calculation, Melt composition adjustment, Metal treatment, Pouring, Moulding.
- Maintaining the quality and quantity of mould and moulding sand. Ensuring sand plant activities.
- Relining and sintering of induction furnace and operation of the induction furnace.
- Improving Quality/Productivity/Reliability at manufacturing with continual improvement.
- Controlling the chemical composition, casting defect analysis, metallurgical and raw material inspection.
- Preparation of process sheet and metallurgical inspection report accordingly for each SG and Grey cast iron.
- Preparing the daily melting schedule, ensuring proper preparations are made before pouring and process control on melting.
- Ensuring adherence to quality standards, implementing stringent quality control systems to enhance quality of products and reduce rejection level & rework.
- Managing the workmen for achieving the periodic production targets in SG and Grey iron.
- Extended the development and implementation of technology to improve productivity through 5S implementation.
- Maintain list of equipment's, Calibration reports and periodic tracking of their timely calibration.
- Coordinating production, purchasing and marketing achieve perform to schedule goals.

### 2. L.G.BALAKRISHNAN & BROS LTD. Bangalore plant, Bangalore (Karnataka)

**Profile** : L.G.Balakrishnan & Bros Ltd. is one of the leading manufacturer of Sprockets, Forging components & Chain kits for all two & four wheelers.

**Position:** Metallurgy Engineer – Heat treatment.
**Period** : September'16 to present

## WORKING EXPOSURE: (Roles)

- Heat treatment process monitoring and scheduling.
- Preparing heat treatment process cycle according to the product.
- Review the heat treatment process cycle daily monitoring sheet and SCADA.
- Monitoring furnace parameters.
- Metallurgical inspection and preparing metallurgical reports of heat treated parts.
- Raw material inspection and analysis.

- Micro structure evaluation of heat treated parts.
- Vendor development for heat treatment process.
- Failure analysis of heat treated parts (Micro structure and process analysis).
- CQI-9 (Heat treatment) audit for internal and suppliers.
- 8-D reports review.
- Perform prototype process trials, materials analysis and properties characterization.
- Process improvement for minimization of defects, reworks and rejections.
- Heat treatment control plan, FMEA, record & updating, ensuring internal documentation as per norm.
- Maintain list of equipment's, Calibration reports and periodic tracking of their timely calibration.
- To prepare the work instruction (W.I.) and familiar with international standards.
- Preparing and closing of Non-conformance report (NCR's), Investigating customer compliant.
- Preparing of validations and Re-validations for operations, machines, process & equipment's.
- Continuous improvements activity.
- Review key performance indicators (KPI's), deciding on corrective measures to be taken, communicating these to the team and monitoring the results.
- To prevent any mix-up of hardened & unhardened components.
- Monitoring daily work plan for all team members and conduct review meetings.
- Co-ordinate with production, quality department to achieve the target and specific requirement in time.
- Implementing 5S and Experience in 7 QC tools.
- Fulfilling the customer requirements (Quantity with Quality).
- Knowledge in SAP – Material movement, Production entries, Quality movements.

## PROJECTS:

**1. MINI PROJECT**:

**Title : DESIGN AND FABRICATION OF COMPRESSION MOULD**

**Description:** Usage of Plastics are increased scarps too, to modify the scarps as a useful product by using man easy compression mould along with spring setup to apply the load, with capability of 6.15 N.

**2. MAIN PROJECT**:

**Title : HOT CORROSION & OXIDATION STUDY OF THERMAL SPRAYED (HVOF) NiCrBsi/WC-Co COATING**

**Description:** The material loss by corrosion and wear is the major problem in the engineering industries; this problem can be eliminated by the proper material selection, heat treatment coating process, etc,. The HVOF (High Velocity Oxy Fuel) coating process is selected to control the wear and corrosion. The NiCrBSi/WC-Co coatings were deposited on SS304 boiler steel by HVOF technique to enhance the high temperature oxidation and corrosion resistance.

## PERSONEL PROFILE:

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| **Date of Birth** | **:** 21-05-1993 |
| **Gender** | **:** Male |
| **Nationality** | **:** Indian |
| **Languages Known** | **:** Tamil, English, Kannada |
| **Marital status** | **:** Single / Un- married |
| **Living Location** | **:** L.G.Balakrishnan & Bros ltd, Bangalore plant, Bangalore. |

I hereby solemnly declare that all the statements made in the above are true and correct to the best of my knowledge and belief.

**N.KUMARESAN**